IN THE COURT OF CRIMINAL APPEALS OF TENNESSEE
AT NASHVILLE
Assigned on Briefs June 9, 2009

RUSSELL LEE MAZE v. STATE OF TENNESSEE

Direct Appeal from the Criminal Court for Davidson County
No. 2002-D-2361 Steve Dozier, Judge

No. M2008-01837-CCA-R3-PC - Filed November 2, 2010

Petitioner, Russell Lee Maze, appeals the dismissal of his petition for post-conviction relief in which he alleged that his trial counsel rendered ineffective assistance of counsel. Specifically, Petitioner contends that (1) counsel failed to make an offer of proof regarding the testimony of Dr. Edward Yazbak; and (2) counsel failed to consult with a qualified medical expert regarding imaging evidence of the victim's neurological damage and failed to present a qualified medical expert to contradict the State's medical evidence regarding causation of the victim's brain and neurological damage. Petitioner also contends that the trial court erred in denying his petition for writ of error coram nobis. After a thorough review of the record, we conclude that Petitioner has failed to show that his trial counsel rendered ineffective assistance of counsel. Furthermore, the trial court did not abuse its discretion when it denied the petition for writ of error coram nobis. Accordingly, we affirm the judgment of the post-conviction court.

Tenn. R. App. P. 3 Appeal as of Right; Judgment of the Criminal Court Affirmed

THOMAS T. WOODALL, J., delivered the opinion of the Court, in which JERRY L. SMITH and J.C. MCLIN, JJ., joined.

John H. Baker, III, Murfreesboro, Tennessee, for the appellant, Russell Lee Maze.

Robert E. Cooper, Jr., Attorney General and Reporter; Deshea Dulany Faughn, Assistant Attorney General; Victor S. Johnson, III, District Attorney General; Brian Holmgren Assistant District Attorney General; and Katrin Miller, Assistant District Attorney General, for the appellee, the State of Tennessee.

OPINION

I. Background

Following a jury trial, Petitioner was initially convicted of felony aggravated child abuse. While Petitioner's case was on appeal to this Court, the victim died. This Court reversed Petitioner's conviction and remanded the case for a new trial because the trial court erroneously failed to instruct the jury on knowing and reckless aggravated assault, knowing and reckless assault, and child abuse as lesser included offenses. *State v. Russell Lee Maze*, No. M2000-02249-CCA-R2-CD, 2002 WL 1885118 (Tenn. Crim. App., Aug. 16, 2002). The State then obtained a superseding indictment charging Petitioner with first degree felony murder and aggravated child abuse. Following a jury trial, Petitioner was convicted of the offenses and was sentenced to concurrent sentences of life imprisonment and twenty-five years. On appeal, this Court affirmed the convictions. *State v. Russell Lee Maze*, No. M2004-02091-CCA-R3-CD, 2006 WL 1132083 (Tenn. Crim. App., April 28, 2006) *perm. to app. denied* (Tenn., Aug. 28, 2006). The facts surrounding Petitioner's convictions were summarized by this Court on direct appeal as follows:

> On the afternoon of May 3, 1999, the defendant and his five-week old infant son were alone in their apartment residence at 320 Welch Road in Davidson County. The defendant's wife, who had been taking care of the infant earlier in the day, had gone to the grocery store and to pick up a fast-food lunch for herself and her husband. Something happened to the infant, prompting the defendant to call E 911 and report that the infant was not breathing.
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> Nashville Fire Department paramedics Anthony Bryant and Carl Evans responded to the emergency call and described at trial what they found and how they reacted. Mr. Evans testified that when he reached the apartment front door, another emergency fireman handed him an infant who was not breathing, was unresponsive, and had no pulse. Mr. Evans immediately commenced CPR and performed mouth-to-mouth resuscitation and chest compressions as he carried the infant to the ambulance. He insisted that his actions would not have broken the infant's clavicle. Mr. Evans did not speak with the defendant, but Mr. Evans recalled briefly seeing the defendant dressed in blue jeans and a tee shirt with damp hair.

Mr. Bryant was waiting in the back of the ambulance and connected a heart monitor to the infant. He testified that the infant was not breathing and had no pulse. The heart monitor showed no activity. Just as the ambulance was preparing to leave for Vanderbilt Hospital, however, the infant's heart began beating spontaneously, and Mr. Bryant intubated the child to induce breathing. He described the child's pupils as fixed and dilated indicating to him that the child had been oxygen deprived for some time.

The defendant's wife arrived before the ambulance departed for the hospital. Metro Police Detective Robert Anderson was outside the apartment at the time, and he observed the wife drive up and stop abruptly. She began screaming "What has happened?" as the detective and the defendant walked toward her. Detective Anderson described the wife as confused and upset, and the defendant, who appeared calm, held and comforted her. Detective Anderson drove the couple to the hospital, directed them to a waiting room, and located a doctor. After the doctor spoke to the couple, Detective Anderson inquired into what had happened. The defendant related that he was getting ready to go to work, and the baby at that time was "fine." The defendant said he went to the bathroom and when he checked on the child approximately 15 minutes later, the child was "pale white." The defendant told the detective that he used a stethoscope to check for a heart beat, and when he heard a slight beat, he called 911 and began CPR.

At the hospital, the infant was admitted to the intensive care unit where he received emergency treatment and underwent diagnostic testing. Vanderbilt emergency-room physician, Ian Jones, performed the initial examination. He testified that the infant appeared to have a "very significant neurological insult," was not breathing on his own or moving spontaneously, and was effectively in a coma. Doctor Jones interviewed the parents to obtain a medical history. The defendant did not mention any traumatic injury; the defendant told the doctor that the infant was "fussy" and had a low-grade temperature, and the defendant claimed that after showering that day, he found the infant unresponsive and not breathing.

Doctor Jones testified that the infant had no signs of infection, and a spinal tap proved negative for meningitis. Because he observed bruising about the child's head and chest, Dr. Jones was suspicious of traumatic injury and ordered a CAT (Computerized Axial Tomography) scan. On cross-examination, he reported that the CAT scan revealed no injuries to the child's internal organs, such as liver, kidneys, and spleen. In addition, he

explained on cross-examination that trauma can have curious indicators and that he had seen individuals with significant abdominal bruising but no internal-organ injury and vice versa.

Through cross-examination, the defense pointed out errors and omissions in Dr. Jones's hospital notes, such as the failure to note bruising and the failure to show whether he had inquired about birth defects or other aspects of the child's medical history. The doctor's notes reflected an "unremarkable" past medical history. The notes incorrectly reflected that the infant was full term when born.

On redirect examination and by way of explanation regarding his notes, Dr. Jones said that his initial role and focus were to stabilize the critically injured infant. His findings were that the infant had a "subarachnoid bleed" in the layers of the brain, a brain contusion, and a subdural hemorrhage. He could not recall if he knew at the time that the infant also had retinal hemorrhages.

Doctor Suzanne Starling, who was qualified as an expert in the fields of pediatric medicine and child abuse, including head trauma, testified that she received a telephone call at approximately 5:00 p.m., asking that she consult with the physicians in intensive care and assist in evaluating the infant's condition. She testified that the child was in a coma and had no normal reflexes when she first saw him. Doctor Starling described the infant's injuries as "fairly obvious," and they included bruising along the eye area, subconjunctival and retinal hemorrhaging in both eyes, and abdominal bruising. To Dr. Starling, the injuries indicated "abusive head trauma," which could not have been self-inflicted by a four-to-five-week-old infant.

Doctor Starling explained that when small children stop breathing or their hearts stop beating, they likely are suffering from a very severe and overwhelming infection or from some type of injury. Testing performed on the defendant's son to detect meningitis, sepsis, abnormal liver functions, and bleeding disorders proved negative. A CAT scan, however, showed significant damage and bleeding to the brain that obviously accounted for the coma. Doctor Starling summarized, "[I]t was clear that his brain had been damaged and caused all of his symptoms."

Once Dr. Starling determined the nature of the injuries, she interviewed separately the defendant and his wife to obtain a medical history and find out what had happened to the child. The defendant told her that the previous day

he had taken care of the baby after his wife left for work around 1:00 p.m. Although not normally "fussy," the baby had cried constantly. His wife came home at midnight, but she also was unable to comfort the baby. According to the defendant, the baby remained "fussy" and never slept that night. The following afternoon, the defendant's wife left to go to the store, and after watching television for a time, the defendant decided to shave and shower. The defendant told Dr. Starling that as he was about to step into the tub, he noticed that the infant was no longer "fussing." He said that when he checked, the infant was pale and gasping, and his eyes were only partially opened. The defendant picked up the limp infant, and he said that he "patted" him on the face to revive him and checked the infant's heart with a stethoscope. When the infant stopped breathing, the defendant called E 911 and initiated CPR.

Upon further questioning by Dr. Starling, the defendant denied that his wife could have injured the infant. The defendant could not explain the bruising on the child's face, but he told Dr. Starling that the abdominal bruising may have been caused by massaging the child's stomach to soothe stomach pains. Doctor Starling testified that the defendant's explanation for the baby's injuries did not coincide with her observations and findings.

When Dr. Starling interviewed the defendant's wife, the wife also described the child as being in good health until the previous day. The wife related that the defendant contacted her at work at 7:30 p.m. to report that the baby was very "fussy." When the wife finished work and returned home at midnight, she fed the baby four ounces of liquid that he promptly vomited. The baby tolerated his feeding at 5 a.m., but he again vomited when fed at 8:30 a.m. The wife described the child as fussy throughout the night. At noon, the child had a slight temperature, was "whimpering," and dozed with his eyes half open. She gave the child a dropper of Tylenol and left to go the store. Approximately 40 minutes later, she returned to the apartment and saw the ambulance in the driveway. The defendant told his wife that the baby had collapsed and that he had called E 911.

Doctor Starling asked the defendant's wife about the baby's facial bruising. The wife had noticed the bruising three to four days earlier but could not account for the source. The abdominal bruising was more recent; the wife mentioned the abdominal massaging, but she did not believe that the massaging caused that bruising. The defendant's wife began crying when Dr. Starling compared the baby's brain injury with that seen in automobile

accidents. The wife denied harming the baby, and she refused to believe that her husband caused the injuries.

Doctor Starling diagnosed the child as having "a constellation of things wrong with him," including the brain injury, massive internal bleeding throughout the brain area, and a fractured collar bone. In her opinion, when the injuries were viewed in combination, "the only way ... [to] get that significant an injury in all those places is to be a battered child." Doctor Starling stated that "abusive head trauma" or "inflicted cerebral trauma," more commonly known as "battered child syndrome" or "shaken-baby syndrome," is a recognized medical diagnosis that can actually be coded for billing and insurance purposes. The major diagnostic features of the syndrome/trauma include: (1) the child's medical history does not account for the injuries; (2) the primary care givers provide different or conflicting accounts of the injuries; (3) the care givers's versions of events will change over time; and (4) the child exhibits swelling inside the brain, bleeding inside and around the brain, and retinal hemorrhages. In terms of brain swelling, Dr. Starling explained that it presses upon brain areas that regulate breathing and heart circulation and "forces the body to shut down."

Doctor Starling testified that the infant had "definitely suffered from abusive head trauma," and she could name no other equivalent trauma that would cause similar patterns of injuries. She excluded premature birth and other pregnancy complications, such as hypertension or gestational diabetes, as making a child more vulnerable to such injuries. She also identified x-rays showing the infant's fractured clavicle bone, and she estimated that the fracture was recent because the x-rays did not detect any callus development. Doctor Starling had seen clavicle fractures in other infants who had been shaken, and she demonstrated how the injury could have occurred. Doctor Starling testified that injuries similar to the infant's usually lead to a "neurovegetative" state, but she did not expect the defendant's child to survive his injuries.

Defense cross-examination of Dr. Starling was aimed at identifying medical mistakes in the case and attempting to link the infant's injuries to pre-existing medical conditions. Doctor Starling acknowledged that the baby was born prematurely, had neonatal jaundice, and the mother had pregnancy complications, including hypertension and gestational diabetes. Doctor Starling, however, disclaimed any connection among these conditions and the infant's head trauma. She said that the parents informed her that the child was

healthy although born prematurely. Doctor Starling agreed that retinal hemorrhaging can be a natural result of child birth, but she added that such natural hemorrhaging usually clears up within several days; furthermore, although brain swelling is associated with retinal hemorrhages, it does not cause the hemorrhages. Doctor Starling testified that the infant did not have Alagille Syndrome, an inherited liver disorder that can cause clotting dysfunctions.

The defense questioned Dr. Starling about adverse side effects from Hepatitis B vaccines, which the defendant's newborn baby had received as part of the medical protocol in place at the time. Doctor Starling was aware that approximately four months after the child was born, the U.S. Public Health Service and the American Academy of Pediatrics called for the elimination of mercury content in childhood vaccines, including Hepatitis B, and recommended a roll back on vaccinating all newborn infants with the Hepatitis B vaccine. She explained that most vaccines are preserved in "thimerosal," which contains trace amounts of mercury, and she recognized that ingesting "massive amounts of mercury" can cause brain damage. Doctor Starling was aware, however, of no credible scientific evidence showing any "neurologic devastation" associated with Hepatitis B vaccines. In addition, she flatly disagreed that the Hepatitis B vaccine can lead to retinal hemorrhaging.

Doctor Starling conceded that the scientific community disagreed whether infant shaking, without impact, can create enough force to cause subdural hematomas and retinal hemorrhages. Even so, Dr. Starling opined that regardless of impact, shaking is abusive and causes abusive injuries. Doctor Starling knew that a CAT scan showed the infant's abdomen to be normal but also indicated depressed boney fragments in the infant's brain, suggesting an old fracture. However, none of the x-rays or other testing could confirm the existence of such a fracture, and in Dr. Starling's opinion the infant sustained one brain injury that occurred very close in time to the infant's collapse.

The defense criticized the one-day delay in obtaining x-rays, which revealed the fractured clavicle. Doctor Starling noted that the primary concern was saving the infant's life, and a fractured clavicle was not a life threatening injury. In terms of common injuries, Dr. Starling stated that clavicle fractures are uncommon in infants who are too young to walk, run, and play.

On redirect examination, Dr. Starling reiterated that no explanation accounted for the totality of the infant's injuries on May 3 other than abusive and non-accidental head trauma.

Doctor Mark Jennings, a board certified physician in pediatrics and neurology, was qualified by the state and accepted as an expert in his fields of speciality. Doctor Jennings was on duty at Vanderbilt University on the evening of May 3, and he saw the infant at approximately 11:40 p.m. The infant was comatose, made no spontaneous or purposeful movements, had no visual function or pupillary reflexes, and had no grimace or gag reflexes. Doctor Jennings did observe occasional abrupt jerking movements of the limbs that he attributed to seizure activity. Doctor Jennings remained the tending neurologist until the infant's death on October 25, 2000.

The doctor testified in detail about the findings from the MRI scans performed on May 12. He pointed out a large collection of blood mainly on the left side of the upper part of the brain indicating a "severe acceleration-deceleration injury." He reconstructed the injury as resulting from a blow applied to the left forehead; "the baby's head was then struck against an object hitting primarily the right parietal occipital area and posterial portion of the skull" which threw the infant's head "back and then may've rebounded forward again in order to produce [the] acceleration/deceleration injury." Doctor Jennings also observed that pressure within the brain increased to the point of causing a "herniation syndrome," meaning that the pressure forced the brain "down through the boney opening at the base of the skull." The head trauma was non-accidental in his opinion.

Doctor Jennings testified that the infant's injuries could not have occurred days-or even hours-before the defendant summoned emergency services. The doctor described the injuries as life-threatening and said that the infant essentially "died at the scene [and] was resuscitated." According to Dr. Jennings, the infant's injuries were the type that "arrest any further development of [ ] neurologic and intellectual function."

Doctor Jennings attended the infant until May 29, when the infant was discharged from the hospital and placed in foster care with Sandra Roberts. The infant required constant care; his respiration had to be closely monitored, and he could not swallow unassisted. Doctor Jennings saw the infant on an out-patient basis on six occasions through October 11 [sic], 2000. Nine days later, on October 19, the infant was readmitted to Vanderbilt Hospital, and the

infant died on October 25. Doctor Jennings explained that as a result of the May 3 injuries, the infant had severe cerebral palsy and recurrent seizures that became worse over time. Doctor Jennings had no doubt that the infant's medical problems were the direct result of the May 3 head trauma, and he described the problems as "progressive, predictable, perhaps, almost inevitable."

When brought to the hospital on October 19, the infant was profoundly comatose with signs of multi-organ failure. He had elevated liver functions meaning that the liver was not making the necessary enzymes to clot blood. From autopsy slides, Dr. Jennings knew that the infant's liver showed signs of "hepatic necrosis," or, in other words, dead liver tissue. Doctor Jennings specified that he had checked liver enzymes throughout the time he saw the infant on an out-patient basis, including the last visit on October 10. He explained that liver injury is a possible side effect of the anticonvulsants being given to control seizures. Doctor Jennings testified that the infant never displayed liver disease prior to the October 19 hospitalization, and in his medical opinion, the infant did not have a pre-existing liver disease that caused cardiac arrest or interruption of breathing on October 19. He believed that the liver abnormalities "were secondary to the respiratory arrest" of October 19.

On cross-examination, Dr. Jennings disputed that the infant had depressed boney fragments on the right temporal bone suggestive of an old fracture. He testified that he had personally reviewed the infant's films and detected no depressed boney fragments. Doctor Jennings agreed that the infant's neck muscles and spine appeared uninjured, but he said that acceleration-deceleration trauma does not necessarily injure those areas. He acknowledged an existing dispute whether infant shaking alone can cause subdural hemorrhages, and he agreed that a traumatic delivery involving forecepts can cause such hemorrhages. To say that subdural hemorrhages could be caused from crying or coughing by an infant who is premature and has a fragile system, however, "would be stretching the limits of credibility."

Doctor Jennings disagreed that there was no evidence of any impact to the child's head. He testified that the retinal hemorrhages were evidence of external impact and that the internal impact involved the acceleration-deceleration injury. He insisted that "this is not an accidental trauma."

On redirect examination, Dr. Jennings reiterated that he saw no evidence from the scans and films taken in May 1999 that the infant had a prior brain injury or head bleeding.

The infant's regular pediatrician, Dr. Lesa Sutton-Davis, testified that she first saw the infant at her office on April 9, 1999. She described the infant as a healthy newborn, who weighed four pounds nine ounces and was 18.5 inches long. Doctor Sutton-Davis performed a complete physical examination, including neurological and developmental assessments which were normal. The state inquired about medical records purporting to document that the infant's head circumference had increased three centimeters within several days. Doctor Sutton-Davis speculated that the measurements may have been taken by different nurses who were not using the same location on the infant's head for measurement. At any rate, Dr. Sutton-Davis emphasized that at an office visit on April 26, shortly before the May 3 hospitalization, she saw no injuries or bruising about the infant's head or abdomen, and she saw nothing suggesting any neurological abnormality. She described the infant as alert, cooing responsively, tracking objects, and having normal head control.

Regarding vaccines, Dr. Sutton-Davis testified that the infant's first Hepatitis B vaccine was administered shortly before his hospital release and that the second Hepatitis B vaccine was given on April 26. Doctor Sutton-Davis knew of no complications from the vaccine, and in her medical career, she had never seen an adverse reaction to that vaccine.

On cross-examination, Dr. Sutton-Davis agreed that the Hepatitis B vaccine that the infant received contained mercury. Mercury was later removed from the vaccine "because there was a theoretical concern about causing brain damage," but "[i]t was never proven." She acknowledged there were reports claiming that the vaccine "might be" associated with Gillian-Barre Syndrome or with worsening of multiple sclerosis; these illnesses, she emphasized, do not exhibit the same symptoms seen in shaken-baby syndrome.

Doctor Mary Baraza Taylor, a pediatric, critical-care physician at Vanderbilt Children's Hospital, was in charge of the infant's second hospitalization in October 2000. She was accepted as an expert in the field of pediatric medicine and testified that on October 19, the infant was flown by Life Flight from a daycare facility to the hospital. The infant had been found in his daycare crib in an unresponsive condition, not breathing and without a pulse. The infant regained his pulse, but the doctor estimated a lapse of approximately 20

minutes. She testified that the infant had no meaningful response and no spontaneous movements and showed symptoms of "anoxic brain injury" from lack of oxygen to the brain and other organs, including the liver. Even so, when the infant was admitted, his white blood cell count was normal, and no infection was detected. The infant was declared dead on October 25 at 3:00 p.m.

From the autopsy, Dr. Taylor knew the infant's liver was injured. She explained that a child with severe liver hepatitis typically would have abnormal liver enzymes; in this case, however, the child's liver enzymes were normal prior to October 19 but, thereafter, showed a dramatic change. According to Dr. Taylor, an individual with fatal liver disease would gradually go into a coma and die after a period of days.

The state called Investigator Lee Allen with the Department of Children's Services in Davidson County and Detective Ron Carter who was assigned to Youth Services and investigated reports of child sexual and physical abuse. Investigator Allen was involved only briefly with the case. He was dispatched to Vanderbilt Hospital in May 1999 where he first observed the child and then interviewed the parents. Testifying from his admittedly "sketchy" handwritten notes, Investigator Allen said that the defendant attributed the bruising on the child's head to an earlier injury caused by the aspirator and the stomach bruising to stomach cramps. The defendant maintained that as he was getting into the shower, he noticed that the baby had stopped crying and was pale. The defendant told Investigator Allen that he picked up the baby, who was limp and gasping for air, and that the baby's eyes were half open and dilated. The defendant said that he "tapped [the baby] on the cheek," checked the heart rate with a stethoscope, began CPR, and called E 911.

Detective Carter also was dispatched to Vanderbilt Hospital to investigate the infant's injuries. He spoke with some of the attending physicians and then interviewed the defendant and the defendant's wife. Detective Carter recorded his interview with the defendant, and the state played the tape recording of that interview for the jury and provided a typed transcript. The defendant gave inconsistent statements regarding whether the shower water was running as he listened for the infant. The defendant repeatedly denied shaking the infant, but he eventually conceded first that he "might" have shaken the baby and second that he shook the child because he "freaked out."

Concerning the infant's medical condition after he was discharged from Vanderbilt Hospital on May 28, 1999, the state offered the testimony of Sandra Roberts. She cared for the infant through his death in October 2000. Ms. Roberts, a social worker with the Center for Family Development in Bedford County, explained that she and her husband had received foster-care training involving children with special needs and that they had accepted a request to be foster parents for the defendant's son.

Ms. Roberts testified that the hospital supplied a large amount of equipment to care for the infant who could not feed himself or swallow and could not sit up or crawl. The infant had seizures on a daily basis and was frequently congested. Because of the possible side effects from the seizure medicines, the infant's blood was tested frequently. Ms. Roberts noticed no negative reactions to any vaccines that the infant received. Ms. Roberts gradually came to the conclusion that the infant was doing well enough to attend the daycare facility where she worked, and one of the Vanderbilt physicians approved the arrangement. On the morning of October 19, her husband took the infant to daycare. Ms. Roberts testified that she had noticed no breathing problems, and the infant's skin color was normal.

On cross-examination, Ms. Roberts said that she would not describe the child as vegetative; rather, he was "very limited" but had a personality and a limited range of emotions. Ms. Roberts was not expecting the infant's sudden collapse on October 19, although she knew that the prognosis for the child was an early death.

The state's final witness was Bruce Levy, the chief medical examiner for Tennessee and the county medical examiner for Davidson County. Doctor Levy performed an autopsy on the infant on October 26, 2000. He ruled the manner of death to be a homicide and testified, "I determined the cause of death as anoxic encephalopathy due to a seizure disorder due to shaken-baby syndrome. The anoxic encephalopathy is a condition when the brain is deprived of oxygen for a long period of time." Doctor Levy identified a seizure as causing the infant to stop breathing and related the underlying cause for the seizure disorder as being the head injury in May 1999.

Although liver disease was not noted in his medical report, Dr. Levy testified that he found liver damage to those areas more sensitive to oxygen deprivation. With an infectious disease, such as hepatitis, the damage to the organ would be more uniform. In his opinion, nothing indicated that the infant's liver

disorder caused or contributed to death. As corroboration, Dr. Levy noted that from May 1999 through October 10, 2000, the infant's liver enzymes were normal, but they became markedly elevated as of October 19, 2000, and continued to elevate. Those test results were consistent with an acute hepatic injury rather than a chronic hepatitis infection. He also opined that nothing unrelated to the original brain injury of May 3, 1999, caused or contributed to the infant's death in October 2000.

On cross-examination, the defense attacked the credibility of Dr. Levy's findings and autopsy report. He admitted that the autopsy report incorrectly referred to a healed fracture of the right clavicle, instead of the left clavicle, and incorrectly noted that the infant was circumcised. He agreed with the defense that the cause of the brain injury could not be determined merely by performing an autopsy and observing an old injury. He also agreed that up to one-third of babies are born with retinal hemorrhages. He specifically disputed, however, any notion that the degree of liver injury in the infant was severe enough to independently cause death.

The defense opened its proof with the testimony of the defendant. He outlined his background, his marriage in 1998, and the birth of his son on March 25, 1999. The defendant worked throughout his wife's pregnancy, but he arranged his schedule to attend all of his wife's prenatal doctor's appointments, except one. He described himself as involved in all facets of the pregnancy. The defendant gave an emotional account of the premature birth of his son, and he spoke of going to the hospital every day even though he was working full time.

The defendant testified that his son had an irregular heartbeat and required monitoring after birth. After coming home, his son was "fussy," had irritable bowel movements, and had crying spells when he could not be consoled. The crying episodes increased in length, and he and his wife became very concerned. According to the defendant, a physician who saw the infant on a weekend said that he and his wife were "over anxious" parents and predicted that the bowel movements would become regulated. The defendant denied that the infant's crying made him mad or upset him. Regarding any discoloration or bruising, the defendant said that he and his wife had noticed some skin discoloration, including a "blotchy mark" when the infant left the hospital, a bruise on the left side of the infant's head, a more recent bruise on the right side of the infant's forehead, which he attributed to his wife's wristwatch or the infant's aspirator, and a light bruise on the infant's stomach.

The defendant explained that the weekend preceding May 3, he was working the 3:00 a.m. to noon shift and that his wife had obtained a part-time job and was also working that weekend. The defendant said that during the weekend, the infant's bowel-movement problems persisted, and the infant could not digest any food. That weekend, the crying episodes increased, and the infant could not be consoled. The defendant was home with the infant from noon on Sunday, May 2, until midnight. During that time, he called his wife at work several times to report that the infant was crying constantly. The defendant left for work Monday morning at 3:30 a.m., and his wife took over caring for the child. He said that when he returned home at 12:20 p.m., his wife told him that the child could not keep any food down, had been up all night "fussing," and had a fever of 100.6 degrees, which she treated with baby Tylenol.

The defendant suggested that his wife drive to get formula for the child and take-out food so they would not have to cook. While his wife was gone, the defendant played with the infant and tried entertaining the infant with television. The defendant claimed that the baby was laughing, cooing, and kicking at that time but later became sleepy. The defendant placed the baby on his back in the crib and went across the hall to the bathroom to shave. The defendant said that he walked back and forth checking on the infant who was sleeping. After shaving, the defendant decided to take a shower, but after he disrobed and reached to turn on the water, he noticed that the baby was making no noises. He immediately went to the crib and "upon doing that, [he] found that [the infant] was pale white"; he picked up the child, "called out [the infant's] name, [ ] rubbed [the infant's] little cheeks, [and] rubbed [the infant's head]. The defendant described the infant as limp and lifeless, and the defendant testified that he felt "utter panic." The defendant called emergency services and began CPR after he checked the infant's heart rate.

The defendant was asked whether he shook the baby at all. He responded, "[N]ot that I recall ... I may have." Claiming that his memory of the events was unclear, the defendant said that "what [he] considered shaking was not the point that was described on May 3rd." According to the defendant, the purpose of the shaking was to revive or awaken the infant. He described what he did as "jostling" rather than shaking. The emergency-services employee on the telephone instructed the defendant to place the infant on a hard surface, to stop full CPR, and to begin breathing for the infant. The defendant testified that he complied, and within three to four minutes, emergency medical help arrived. The defendant did not remember when he dressed, but he recalled being concerned with appearing totally naked when help arrived.

The defendant described running to the ambulance to check on the infant and what happened when his wife arrived. The defendant admitted that at the hospital, he told the doctor about the child's faint heartbeat but did not mention that he had shaken the child. The defendant's only explanation was, "I wouldn't-I wasn't thinking in that manner." The defendant denied intentionally lying to the officers and physicians and said that he was very emotional and distraught. He agreed that he initially denied to Detective Carter that he had shaken the baby, but the defendant said that "what [he] thought that [Detective Carter] was talking about the shaking in a violent way, not in the way that [he] had to revive [the infant]." Later, the defendant decided that it was important to advise the detective that he had "jostled" the baby to revive him.

On cross-examination, the state emphasized the defendant's failure to advise any of the medical personnel about shaking the child. The defendant admitted the shaking to Detective Carter only after being repeatedly asked. As for his earlier denials, the defendant testified that he "was trying to determine between jostling and shaking" by the detective's definition, and he insisted that he did not shake the infant "to the violent extent" to which the doctors referred. When, however, the defendant made his admission to Detective Carter, the defendant prefaced it by saying that he would only talk outside his wife's presence because he did not want his wife to know what happened. The defendant claimed on cross-examination that he made the statement because he wanted the opportunity to tell his wife first.

The state also challenged the defendant's claim that, while shaving in the bathroom with an electric razor buzzing, he could hear the infant in the crib across the hall, and the state pointed out that the defendant had made inconsistent statements regarding whether the shower water was running.

The defendant did not believe the CPR that the fireman started on his son would have caused the injuries seen at the hospital. Regarding the fractured clavicle, the defendant acknowledged the possibility that he could have caused the injury. He explained, "I think, when I picked him up outta the crib and jostled him to revive him or to see if he was responsive, I possibly could have done that then."

The defense also presented the testimony of his wife, sister-in-law, aunt, and uncle. The sister-in-law, Sandra Hicks, testified briefly that she was in the defendant's home and spent time with the infant. Ms. Hicks characterized the

defendant as a very good father. The infant, she said, was bright eyed but cried a lot and did not rest. She also noticed that the size of the infant's head seemed to be large, and the infant did not have a soft spot on the top of his head. Ms. Hicks never saw the defendant become frustrated or angry with the baby even when the baby cried.

Kathy Stanton, the defendant's aunt, spent a lot of time with the infant. She observed that the infant had a red spot around his left temple shortly after being discharged from the hospital, and she noticed an area around the infant's soft spot that appeared to be bulging. Even so, the infant appeared normal in April 1999 as contrasted with the infant's appearance when Ms. Stanton visited with him in foster care. The defendant's uncle, William Stanton, testified about peculiar things he noticed, such as a red spot on the side of the infant's head and the cone shaped feature of the infant's head. Mr. Stanton visited twice after the infant was transferred to foster care. Mr. Stanton described the infant as sick but capable of limited responses. The infant did not appear to be in a vegetative state.

The defendant's wife, Kaye Maze, testified and related her pregnancy complications, which included cramps, bleeding, gestational diabetes, hypertension, and low amniotic fluid. Ms. Maze was unable to work during her pregnancy. The umbilical cord was wrapped twice around the infant's neck when he was delivered, and his heart rate was fast. The infant's skin was blotchy and appeared swollen around the face and eyes. When vaccinated for Hepatitis B at the hospital, the infant weighed four pounds. Seven days after receiving the second Hepatitis B vaccine, the infant collapsed, and during that seven-day period, Ms. Maze said that the infant developed a slight discoloration on his temple and seemed to get "fussier and fussier."

Ms. Maze related her activities during the weekend preceding May 3 and how she had not slept Sunday night because the infant could not be consoled. When the defendant came home on Monday afternoon at 12:30, he offered to care for the infant to allow her to drive to the store for more baby formula and to bring back take-out food. Ms. Maze estimated that she was away from the residence for approximately 40 minutes, and when she left, her husband did not appear angry or frustrated. Upon her return, Ms. Maze encountered the ambulance, and she recalled being driven by the police to the hospital. At the hospital, she remembered Dr. Starling saying that the defendant had done something to hurt the child and that the child was not expected to live.

On cross-examination, Ms. Maze admitted the possibility that she told Dr. Starling that the infant was normal until brought to the hospital and that she told Detective Carter that the baby did not become fussy until she began her part-time job. She recalled telling Detective Carter at the hospital that the bruises first appeared the weekend that she began her part-time employment.

Ms. Maze did not believe that her child was a victim of child abuse, and she and the defendant were still married. The defendant did admit to her that in the course of trying to save the infant's life, it was possible that he "might" have shaken the baby and that in picking up the child, it was possible that he could have fractured the clavicle. Ms. Maze was convicted of reckless aggravated assault and failure to protect in May 2000.

The remaining defense witnesses were physicians. Doctor Nicole Schlechter was Ms. Maze's attending obstetrics and gynecology physician. During pregnancy, Ms. Maze had chronic hypertension, gestational diabetes, inter-uterine growth restriction, and low amniotic fluid level, and Dr. Schlechter categorized the pregnancy as "high risk." Doctor Schlechter did not use forceps to deliver the baby; she considered the baby to be healthy, despite being small for his gestational age, and detected no adverse effects from the mother's pregnancy complications.

The defense qualified Dr. Edward N. Willey as an expert in pathology. Doctor Willey was licensed to practice in Florida and Michigan, was board certified in anatomical pathology, and had studied childhood head injuries and trauma. He had reviewed Dr. Levy's autopsy report and the autopsy slides, and Dr. Willey criticized Dr. Levy's failure to document the infant's severe liver disease. In Dr. Willey's opinion, the liver disease was fatal and was "a reasonable explanation for death." Doctor Willey also noted that the autopsy report failed to mention an abnormal diaphragm, probably an inherited disease, that would make it difficult to breathe.

Doctor Willey did not believe it medically reasonable to attribute the death of the child in October 2000 to a trauma that occurred on May 3, 1999. He explained, "With the acute onset of liver damage ... that's sufficient to explain death." He also did not believe that the abnormal liver enzymes were the result of the infant's respiratory arrest on October 19. He attributed the liver enzymes to an aggressive hepatitis and testified that hepatitis is not caused by anoxia.

On cross-examination, the state challenged Dr. Willey's hepatitis diagnosis. Doctor Willey, however, insisted that the autopsy slides showed an "inflammatory component" and that "most of the [liver] cells were falling apart in the center," which indicated a form of hepatitis probably caused by a virus. He refused to agree that oxygen deprivation for 15 to 20 minutes would cause the degree of liver damage shown on the slides, although he did acknowledge that oxygen deprivation would elevate the liver enzymes. Doctor Willey agreed, however, that hepatitis generally does not cause cessation of breathing. Whatever the cause, Dr. Willey maintained that the myopathy of the infant's diaphragm aggravated the situation. Doctor Willey did not dispute that the infant had definite and severe brain injuries.

Defense witness Mary Kay Washington was a professor of pathology at Vanderbilt and board certified in anatomical and clinical pathology, with expertise in liver and gastrointestinal pathology. As had Dr. Willey, Dr. Washington criticized Dr. Levy's autopsy findings that the infant's liver was essentially normal. She testified that significant abnormalities appeared in the infant's liver. The abnormalities and inflammation indicated a pattern of injury attributable to hepatitis, not simply low blood flow to the organ, and Dr. Washington opined that the "degree of liver injury certainly could've been a significant contribution to death." Doctor Washington opined the hepatitis could have been caused by a virus or by the ingestion of numerous anti-seizure medications.

On cross-examination, the state elicited Dr. Washington's concession that the infant's brain injury was the overriding cause of death. She testified, "I think the liver injury could have contributed, but I think the brain injury alone would've been sufficient." In addition, Dr. Washington said that the infant's breathing cessessation on October 19 was not caused by any underlying liver disorder. The immediate cause of death on October 19 was insufficient oxygen to the brain.

State v. Maze, 2006 WL 1132083, at * 1-14.

II. Post-Conviction Hearing

Dr. Patrick David Barnes is a Pediatric Neuroradiologist board-certified in California. He testified that in the last ten years, there have been significant changes in the medical literature concerning "Shaken Baby Syndrome, non-accidental injury, and particularly with regard to the so-called triad of clinical and imaging findings." Dr. Barnes explained that challenges have been made "regarding the specificity of that triad for shaken baby syndrome,

or non-accidental injury." Concerning the literature prior to 1998 on shaken baby syndrome, Dr. Barnes stated:

> Well, as I mentioned earlier, the triad of retinal hemorrhages, subdural hemorrhages and brain injury, a term called encephalopathy, was the triad that was considered to be specific for - - particularly for Shaken Baby Syndrome, but for child abuse in general.
>
> With the advancing technology that we have and particularly doing stronger research outside of the child abuse literature, particularly where the experts are in brain injury and causation, including bio-mechanics, neuropathology, neurology and neurosurgery, applying those disciplines to it we now know that there are other causes of this triad or any component of that triad, including accidental injury, but also medical causes or non-traumatic conditions.

He testified that there have been advancements in the use of imaging technology such as Magnetic Resonance Imaging (MRI). Dr. Barnes said that the triad was universally accepted in the medical community prior to 1998, and he also accepted and testified according to those principles. He testified in the 1997 "Elizabeth Woodward" case in Boston, a case involving a skull and a wrist fracture, and he applied the triad. However, he explained that there was also "impact trauma" in the Woodward case, and it was clear that the victim had a traumatic injury.

> Concerning literature prior to 1998, Dr.Barnes testified:
>
> And what we found out in the previous thirty years, prior to 1998, was a relatively low quality of evidence ratings, particularly in the Shaken Baby Syndrome and child abuse literature, of which I published quite a bit in that literature, including in the book and a chapter in the Kleinman textbook that wasn't written in terms of adhering to those principles.

The name of Dr. Kleinman's 1998 book is "Diagnostic Imaging of Child Abuse, " and Dr. Barnes co-authored Chapter Fifteen on head injury. Dr. Barnes wrote another chapter on Advanced Imaging, and he helped co-edit other chapters in the book. He also wrote other articles during that time. Dr. Barnes testified that the "evidence-based medicine standard" is now applied rather than the triad.

Dr. Barnes testified that "the leading book at this time is the book on non-accidental head injury. And Laurie Frazier, along with a number of other highly regarded forensic pediatricians in this country, have published that book in 2006." He explained that "the

Frazier book is a chapter on all of the other conditions, particularly medical conditions that can mimic the clinical and imaging findings that we have heretofore attributed to child abuse." Dr. Barnes also co-authored a couple of recent articles "the most recent of which was published in what's known as Topics of Magnetic Resonance Imaging in 2007, on the Imaging of Non-accidental Injury and its Mimics, among other articles."

In reviewing the CT scans, MRI images, and x-rays of the victim in this case, Dr. Barnes found that the victim suffered from a "hemorrhage between the brain and the skull, including what we would call subarachnoid and subdural hemorrhage." There was also a retinal hemorrhage. He said that it was impossible for the CT to tell when the injury occurred or to distinguish traumatic injury from non-traumatic causes, such as a stroke. He did not see any evidence of an old fracture. Concerning his recommendation, Dr. Barnes said:

> Get CPS involved right away. But then let's make sure we work up the child for other conditions. And that includes accidental trauma but also medical conditions, such as a bleeding or a clotting problem, what we call a coagulopathy.
>
> And what we find in this baby when we look at the chart is a very severe anemia in this baby at that time. Which would be a potential pre-disposition for these findings.
>
> The other part of the differential would be infection versus what we call post-infectious conditions. So then we need to look at the baby's history of illness prior to when this baby essentially crashed and presented acutely for any potential infection that could predispose this or other infection related conditions.
>
> We would also include in the differential diagnosis hemorrhage or re-hemorrhage superimposed upon any birth issues, since this baby presented at only five and a half weeks post natal age.
>
> And that would essentially be our differential diagnosis, also including some rare metabolic and other disorders for the doctors to work up.

Dr. Barnes testified that the CT scan on May 6, 1999, showed what he called "hemorrhagic infarctions, or strokes" on the right and at the back on the left of the victim's head, which would be a clue that the victim had a bleeding or clotting problem. He explained that this would be "quite unusual to be associated with impact trauma without obvious traumatic injury that would be visible on examination." Dr. Barnes testified that on May 6th, the

radiologist noted that there may be a "venous thrombosis here and that an MRI should be done." He said that the MRI done on May 12, 1999, nine days after the victim was admitted into the hospital, showed changes in areas of "new hemorrhage, as if there is an ongoing bleeding or clotting problem, or strokes caused by clots or thrombosis forming in veins." Dr. Barnes felt that was further evidence that "would be quite non-typical for trauma unless there is an associated bleeding or clotting problem from the trauma." He noted that the MRI showed no injury to the victim's neck or cervical spine, the bones of the spine, or the spinal cord. Dr. Barnes further noted that:

> [A] ll the recent literature tells us that if shaking only is going to produce this type of brain injury we'd probably have to have neck injury, spine injury, or spinal cord injury with it because that's the weakest part of the head and neck. So that's something else that might take us away from considering Shaken Baby Syndrome.

The victim also had an arachnoid or congenital cyst between the brain and the skull just behind the eye area. Dr. Barnes noted that a large body of literature "describes that as a predisposing condition to subdural hemorrhage and to retinal hemorrhage." He said that using the "current timing parameters" that may not have been applied in 1999, some of the hemorrhages seen on the CT scans could have been older than fourteen days, and prior hemorrhages may date back to birth. He also said there was a possibility of chronic injury and re-bleed.

Dr. Barnes testified that his review of the victim's CT scan from February showed that the victim had no new hemorrhages and that he had a "very large cystic fluid filled areas that represent the injury, now chronic, related to what we saw on earlier imaging." He said that the injury is basically a hole in the brain involving the surface of the brain and extending deep. Dr. Barnes testified that "the most common cause of that in this age group with the immature brain is a stroke or a hemorrhage. It's an unusual finding for bruising or a contusion." He also felt that the edema shown in the victim's brain was consistent with a stroke. Dr. Barnes testified that even under the guidelines used in 1998, he felt that the present case would have been "unusual for Shaken Baby Syndrome, or Shaken Impact Syndrome, and we would need to look for other conditions." He agreed that the victim could get the constellation of findings in this case "with battering." He said, "That's what it would take, but there ought to be good evidence for that." Dr. Barnes did not feel that the victim's bruises correlated with what was seen in the brain. He testified that the victim may have met some of the "skin findings" for Battered Child Syndrome.

Dr. Barnes testified that he examined all of the victim's x-rays, including those taken post-mortem. He did not see any fracture of the clavicle as noted by the radiologist on May 4, 1999.

On cross-examination, Dr. Barnes admitted that much of his testimony was not included in his report or affidavit. He did not mention anything about birth related trauma or re-bleed in the affidavit. Although he did not include strokes, he did mention venous thrombosis. When asked why his report was so limited, Dr. Barnes said:

> Yes, sir, at that time I had received images that were films scanned to CD, so their quality wasn't quite as good as when I finally received the films. And I don't remember specifically when I had received the films but I had reviewed the other materials from the medical record and so forth, that I commented on today, so I never really got to give - - this is still a preliminary report - - I never got to give my formal final report.

He reviewed the victim's medical records and was familiar with the variety of tests that were administered to the victim. Dr. Barnes felt that advanced testing for "the hyper coagulable states, also known as the prothrombotic states," should have been performed on the victim. He admitted that nothing in the testing done suggested that the victim had an infectious disorder. Dr. Barnes testified that there was some literature to suggest that anemia is a predisposing factor for retinal hemorrhage, such as seen in the victim's case. However, this literature was not cited in his report. Dr. Barnes admitted that his testimony at the post-conviction hearing was different than what he had previously written in the Kleinman book published in 1998. He testified that the victim's injuries in this case would "fulfill two of the triad." Dr. Barnes testified that although doctors from Vanderbilt ruled out venous thrombosis in their reports, he felt that the "imaging studies as done does not rule it out." Therefore, he did not include their findings in his report. Dr. Barnes admitted that his preliminary report omitted certain information from the victim's case, and he did not follow-up with a final report. He also admitted his duty to provide a thorough report and not omit information.

Dr. Barnes testified that he and Carolyn Robs published an article in 1999 entitled "CP Findings and Hyper acute Non-Accidental Brain Injury." He admitted that his testimony at the post-conviction hearing was inconsistent with the article "because it's old and obsolete, just like the chapter that Dr. Kleinman and I wrote is obsolete now." Dr. Barnes testified that he did not review any of the photographs taken of the victim. He agreed that the photographs showed bruising to the victim's head and abdomen. He felt that the information in the photographs was important to the "doctors working the patient" but not to him because he interpreted the "imaging findings." Dr. Barnes testified that he did not consider evidence of

traumatic injury to the victim because "it's not within our area of expertise or practice with regard to the ethics in medicine."He also did not consider the victim's history as part of his diagnostic process. Dr. Barnes noted that at least one study has shown that evidence-based medicine supports a finding that a child cannot be shaken hard enough to cause injury without injuring the neck first. He did not mention this finding in his report.

Dr. Barnes testified that there was nothing to specifically show that the victim had any birth related trauma that caused him to collapse on May 3, 1999. However, he said that the victim had several risk factors for bleeding. He said: "The baby's prematurity is one predisposing factor in this particular case, with regard to bleeding at birth, along with the findings of hyperbilirubinemia above levels we would expect for a preemie as an indicator of possible hemorrhage." Although he did not have anything to support those factors, he could not rule them out. He felt that the victim's case did not meet the triad for shaken baby syndrome due to the "hemorrhagic infarctions or strokes" in the victim's brain which were noted nine days after he was admitted to the hospital. Dr. Barnes did not feel that the victim in this case had a fractured clavicle, as noted by other doctors. He agreed that the shaking of an infant could cause the fracture.

Dr. Edward Yazbak, a pediatrician licensed in Rhode Island and Massachusetts, testified that he reviewed medical records of the victim's mother in this case with regard to her pregnancy. He observed several maternal risk factors, including the mother's age, high blood pressure, and gestational diabetes. Dr. Yazbak testified that the victim had intrauterine growth retardation, a short cord that was wrapped around his neck twice, and he was not surrounded by enough amniotic fluid. Although the victim was born prematurely, at thirty-four weeks gestation after inducement with medication, his Apgar scores were good. He later became extremely jaundiced and had "an attack of tachycardia" or a "very fast heart rate" while in the nursery. However, the tachycardia subsided before the victim was seen by a cardiologist because of the medication that he received. Dr. Yazbak testified that the victim's heart rate during the episode was two-hundred twenty beats per minute, while the normal heart rate for an infant is one-hundred twenty to one-hundred thirty beats per minute. He said that nursery records also indicated that the victim was anemic. Dr. Yazbak noted that at a follow-up visit with Dr. Fish, a cardiologist, the doctor found that the victim had an exaggerated sinus tachycardia which meant that the tachycardia experienced at the hospital "was not due to illness or anything else, it was due to the fact that the sinus, which sends -- the sinus is the little knot that sends the electrical impulses. It was just was beating faster than it should be." Dr. Yazbak also noted that the victim's heart rate was one hundred and fifty-seven beats per minute, which was still a little above normal.

Dr. Yazbak testified that on April 3, 1999, the victim received an intramuscular Hepatitis vaccine before he was discharged from the hospital. He said while it was not clear

from the records, a computer print-out shows that the victim was given a recombinant vaccine called "Recombivax." However, a hand-written note by a nurse showed that the victim was given "Hepgavax," which was serum based and illegal in 1999. Dr. Yazbak testified that after the vaccine, the victim gained five ounces overnight and was given Lasix, a diuretic. He was discharged from the nursery three days later, on April 7, 1999, with a head circumference of thirty-one centimeters. .

The victim saw his pediatrician on April 9, 1999, and there was a distinct increase in head circumference to thirty-four centimeters. Dr. Yazbak noted that the victim was seen again on April 16, 1999, for an upper respiratory infection and two days later because he was "still congested and constipated. There were questions of the feeding." On April 26, 1999, the victim was seen by his pediatrician for a well visit. The doctor noted that, "Well preemie doing well," and he was given a second Hepatitis B injection. The victim's head circumference was thirty-four centimeters. Dr. Yazbak testified:

> Now, this - - this injection, particular injection should have given - - it should have been always one month in total between the two shots. This injection was given earlier than one month against all recommendations. And certainly more so in a premature baby.
>
> The rule is, the recommendation of - - that we had and was still going on, is that the second dose should be at least one month after the first dose. The third dose should be at least four months after the first dose and at least two months after the second dose, but not before the age of six months.

He did not know if any of the victim's problems on May 3, 1999, could be attributed to the Hepatitis B vaccine.

Concerning the victim's hospital records on and after May 3, 1999, Dr. Yazbak explained that although he is not a neuroradiologist, he opined that the victim "may have had some minute strokes, some thrombosis, some problems with the vascular in the . . . in the texture of the brain, not outside of it." Dr. Yazbak testified that in addition to brain and retinal hemorrhages, the victim in this case "had other very striking intra cranial events and intra cranial problems." However, as far as he was concerned, the victim had no brain injuries. Dr. Yazbak testified that the "diagnosis of inflicted head injury is a diagnosis by exclusion. It has to be the last thing on the list." He noted that the most important thing to look at in this case is the victim's history. Dr. Yazbak said:

> And again, when I look at the admission note, nobody - - this doctor did not - - he was not aware of what happened during the pregnancy, was not aware of

> all the spotting, was not aware of the failure to thrive, was not aware of the cord around the neck, was not aware of the tachycardia.
>
> This doctor gets this baby, said, oh, the baby was with the father, the baby stopped breathing, we took a CT scan, he has a brain hemorrhage, oh, it must be child abuse.
>
> But you have to look at the history because everything - - there's nothing more important than a history in pediatrics. It's actually more important than the physical examination. Because the baby does not tell you that he hurts.
>
> So as an infant the most simple thing is to listen to the history. And then I do a careful examination. And then I start writing down things.
>
> There is no spot diagnosis that's permissible. No spot diagnosis permissible, because every time you would make a mistake.

He noted that there was a progressive decreased density of the victim's brain and loss of "gray/white differentiations out of the brain" from the CT scan of May 3, 1999, to May 8, 1999. He further noted: " In addition, there had been internal development of low acceleration within the brain bilaterally. All of these areas are more consistent with epoxy injury." Dr. Yazbak testified that this would "have made me think to look at something else, at another disease."

Dr. Yazbak testified that the victim's weight gain in the hospital nursery was a very serious event that was not explained. As it related to the findings on May 3, 1999, he said:

> Well, I can only guess, is that if the baby is having tachycardia and the circulation and the pulsations are not strong enough, that somehow there was a slowing and some kind of a thrombosis happened in the nursery, I don't know. But something could have happened.

He felt that this could have been ruled out by performing an ultrasound on the victim. Dr. Yazbak testified that the increase in the victim's head circumference between April 26 and May 3, 1999, suggested some venous thrombosis. He did not feel that "all of what happened to this baby's head happened a few minutes before he went to the hospital on 5/3/99." Dr. Yazbak testified that he consulted with the defense in this case prior to trial, and if he had been called to testify, his testimony would have been the same as at the post-conviction hearing. He felt that if someone had shaken the victim hard enough to cause the "devastating intercranial findings," the victim's neck would have been injured.

Dr. Yazbak testified that the victim was given a series of vaccinations after May 3, 1999, that would increase the victim's seizures and could cause his eventual death. He believed that the victim died of liver disease.

On cross-examination, Dr. Yazbak admitted that the American Academy of Pediatrics had a "position paper that basically says that the findings [the victim] had on 5/3/99, are diagnostic of inflicted head trauma from shaking." However, he disagreed with that finding. Dr. Yazbak testified that the increase in the victim's head circumference prior to the second pediatrician visit indicated that "something bad is happening in [the victim's] head."He was aware that prior to May 3, 1999, the victim was routinely seen by physicians, and he was not documented as having a tense fontanelle. Dr. Yazbak was also aware that Dr. Sutton-Davis testified at trial that the measurement of thirty-four centimeters two days after the victim was released from the hospital may have been incorrect. He further acknowledged that a later measurement of thirty-four centimeters on April 26, 1999, was not abnormal. Dr. Sutton-Davis also testified that based on her repeated examinations, there was nothing neurologically wrong with the victim. Dr. Yazbak admitted that there was no evidence based on the CT scan that the victim had extra collections of blood or cerebral spinal fluid prior to May 3, 1999, and no evidence of any birth related subdural hemorrhage. He further admitted that there were no symptoms associated with an altered neurological status between birth and May 3, 1999. Dr. Yazbak acknowledged that medical literature recognizes that when there is a collapse, such as the victim had on May 3, 1999, in the absence of a well-documented traumatic event, the only way in which it would happen would be by abuse. Dr. Yazbak reviewed the photographs of the victim at the post-conviction hearing and did not feel that there was any bruising to the child. He said, "[t]his looks like stasis from circulation" because the victim was in shock. Dr. Yazbak agreed that according to his position, the present case did not involve abuse because all of the things needed to rule out some other causation were not done.

Trial counsel testified that he was appointed to represent defendant in this case. He requested several different expert witnesses through the court. Trial counsel testified that he consulted Dr. Boulden, a pediatric radiologist at LeBonheur Hospital in Memphis. He did not call Dr. Boulden as a witness "because he would not have supported my defense." Trial counsel said:

> I sent him a copy - - or I sent him the actual x-rays that I'd been provided by Ms. Miller, at the District Attorney's Office. I sent it to him. He said - - he replied saying that, 'I don't see any fracture of the baby's collarbone.'
>
> I contacted Ms. Miller about it again, she said, 'you've been provided with the wrong x-ray.'

> So I got another x-ray from them. I sent it to the doctor down there and he said that this baby has a fractured collarbone.

He did not consult with Dr. Boulden about the MRI's, CT scans, or the retinal photos in this case. Trial counsel testified that he consulted with another expert, Dr. Cleland Blake, a pathologist, about the evidence. Again, he did not call Dr. Blake to testify because it would not have supported the defense.

Trial counsel testified that he attempted to call Dr. Yazbak as an expert witness at trial. He said that Dr. Yazbak ultimately did not testify, and trial counsel did not present an offer of proof as to what his testimony would have been. He said:

> I remember having a hearing in chambers with Judge Dozier regarding the testimony of Yazbak.
>
> I had prepared a motion, which was rather late, in the trial process. We were approaching trial when I approached Judge Dozier about it.
>
> At this point I can't remember if I presented an affidavit of Yazbak's or a letter from him, or what. Or if it was just my proffer of what he would be testifying to. I can't recall.

On cross-examination, trial counsel testified that Dr. Boulden looked at the clavicle fracture issue, and Dr. Blake looked at other findings from the CT scan and MRI. Trial counsel testified that he looked at the victim's x-ray and saw what appeared to be a broken bone. He said that Dr. Blake was of the opinion that the victim suffered from child abuse or non-accidental trauma. Trial counsel testified that there was nothing in Dr. Blake's or Dr. Boulden's opinions that he thought would be helpful at trial.

Concerning Dr. Yazbak, trial counsel testified as follows:

> [I]t was my understanding that Yazbak would testify about the adverse effects of Hepatitis B vaccine and specifically having to do with thimerosal. That was a lead based preservative that was used in Hepatitis B vaccine at that time.
>
> I did quite a bit of on line research and other research into that area and it didn't appear to me to be something that would have been supported by a mainstream of medical opinion at that time.

> I was aware that there were several doctors, from Australia, in Italy, and also in the United States, including Yazbak, who were advocates of that line of argument.
>
> But it appeared to me to be something that was - - not something that I was going to readily be able to support through his testimony.

Trial counsel testified that he received Dr. Yazbak's name from Toni Blake. Ms. Blake, an employee of the "National Center for assisting trial attorneys in the defense of cases involving allegations of shaken baby syndrome," assisted trial counsel before and during trial with various types of information, which included a laundry list of alternative medical theories or challenges to testimony presented by the State's experts. Trial counsel said that he tried many of those theories during the cross-examinations of Dr. Jones, Dr. Starling, Dr. Levy, and Dr. Jennings. The doctors disagreed with the theories. He also had the trial record from 1999 and was familiar with the testimony previously offered by doctors in the first case involving the victim's injuries. In the second case, the new information primarily involved the victim's death. Trial counsel testified that during the second trial, he presented to the jury as many alternative explanations for causation as he could find. He said that the only theory proposed by Ms. Blake and Dr. Yazbak in 2004 was "the vaccine, the Hepatitis B vaccine, the fact that he [the victim] was given too much too soon." Trial counsel agreed that the best strategy is to "hone in" on one issue rather than a broader approach; however, he noted that he had a "fairly good shot, because the child obviously had hepatitis." He did not feel that there was anything ineffective about the manner in which he presented Petitioner's case. Trial counsel testified that he did not consult with a neurologist in this case. He did consult with Dr. Kay Washington, an expert in liver disorders from Vanderbilt University, and he called her as a witness at trial. Ms. Blake also gave him the name of a doctor in Florida, Dr. Willey, with whom he consulted, and he also consulted with two doctors in California.

III. Petition for Post-Conviction Relief

A petitioner seeking post-conviction relief must establish his allegations by clear and convincing evidence. T.C.A. 40-30-210(f). The trial court's application of the law to the facts is reviewed *de novo*, without a presumption of correctness. *Fields v. State*, 40 S.W.3d 450, 458 (Tenn. 2001). A claim that counsel rendered ineffective assistance is a mixed question of fact and law and therefore also subject to *de novo* review. *Id*.; *State v. Burns*, 6 S.W.3d 453, 461 (Tenn. 1999).

When a petitioner seeks post-conviction relief on the basis of ineffective assistance of counsel, he must establish that counsel's performance fell below the range of competence demanded of attorneys in criminal cases. *Baxter v. Rose*, 523 S.W.2d 930, 936 (Tenn. 1975). In addition, he must show that counsel's ineffective performance actually adversely impacted

his defense. *Strickland v. Washington*, 466 U.S. 668, 693, 104 S. Ct. 2052, 2067, 80 L. Ed. 2d 674 (1984). In reviewing counsel's performance, the distortions of hindsight must be avoided, and this Court will not second-guess counsel's decisions regarding trial strategies and tactics. *Hellard v. State*, 629 S.W.2d 4, 9 (Tenn. 1982). The reviewing court, therefore, should not conclude that a particular act or omission by counsel is unreasonable merely because the strategy was unsuccessful. *Strickland*, 466 U.S. at 689, 104 S. Ct. at 2065. Rather, counsel's alleged errors should be judged from counsel's perspective at the point of time they were made in light of all the facts and circumstances at that time. *Id*. at 690, 104 S. Ct. at 2066.

A petitioner must satisfy both prongs of the *Strickland* test before he or she may prevail on a claim of ineffective assistance of counsel. *See Henley v. State*, 960 S.W.2d 572, 580 (Tenn.1997). That is, a petitioner must not only show that his counsel's performance fell below acceptable standards, but that such performance was prejudicial to the petitioner. *Id*. Failure to satisfy either prong will result in the denial of relief. *Id.* Accordingly, this Court need not address one of the components if the petitioner fails to establish the other. *Strickland*, 466 U.S. at 697, 104 S. Ct. at 2069. In cases involving a guilty plea, the petitioner must show prejudice by demonstrating that, but for counsel's errors, he or she would not have pleaded guilty but would have insisted on going to trial. *See Hill v. Lockhart*, 474 U.S. 52, 59, 106 S. Ct. 366, 370, 88 L.Ed.2d 203 (1985); *Bankston v. State*, 815 S.W.2d 213, 215 (Tenn. Crim. App. 1991).

A. Failure to Make an Offer of Proof Regarding the Testimony of Dr. Yazbak

Petitioner argues that trial counsel was ineffective in this case for failing to make an offer of proof regarding the testimony of Dr. Edward Yazbak, a pediatrician licensed in Rhode Island and Massachusetts. Concerning this issue, the post-conviction court held:

> [T[he petitioner asserts trial counsel was ineffective in failing to make an offer of proof as to the testimony of Dr. Yazbak and if such proof had been offered, his testimony would have been found reliable and critical. The Court finds that Dr. Yazbak was not credible and further the appellate court reviewed his exclusion and found that it did not affect the outcome of the trial.

The record in this case supports the court's findings. Trial counsel testified that he intended to call Dr. Yazbak to testify at trial concerning the adverse effects of the Hepatitis B vaccine, more specifically, about thimerosal, a lead-based preservative used in the vaccine around the time of the victim's death. Concerning this issue, trial counsel testified that there was a hearing in the trial judge's chambers regarding this issue. He could not recall if he "presented an affidavit of Yazbak's or a letter from him, or what. Or if it was just my proffer

of what he would be testifying to. I can't recall." The trial court ultimately excluded the testimony, and on direct appeal, this Court noted that the trial court treated the issue as a discovery notification issue. This Court also quoted, in pertinent part, the ruling of the trial court:

> The issues that're set forth in [the] motion in limine, dealing with Hepatitis B vaccine; the retinal hemorrhaging, and subdural hemorrhaging; the lack of injuries to neck muscles and spine, attributable or not attributable to shaken-baby syndrome, have all been know[n] . . . [and] many of them addressed in the prior trial.
>
> . . . But those issues about the vaccine, the injuries, the retainal [sic] hemorrhaging, have been known for years.

State v. Maze, No. M2004-02091-CCA-R3-CD, 2006 WL 1132083 at *18 (Tenn. Crim. App. April 28, 2006) *perm. app. denied* (Tenn. Aug. 28, 2006). This Court further pointed out that in its motion in limine, "the defense claimed that Dr. Yazbak was prepared to testify that there are 'many known and reported cases' of adverse effects from Hepatitis B vaccinations, including retinal hemorrhaging and subdural hemorrhaging." *Id*. at *19. Therefore, Dr. Yazbak's proposed testimony was set forth in the motion in limine.

Additionally, on direct appeal, this Court found that Dr. Yazbak's testimony would not have affected the result of the trial. This Court held:

> Through cross-examination of the state's experts, the defense explored medical issues favorable to its position. Doctor Starling was aware and so testified on cross-examination that shortly after the birth of the infant, the U.S. Public Health Service and the American Academy of Pediatrics issued a joint statement calling for the elimination of mercury content in Hepatitis B and other vaccines. Doctors Starling and Jennings also conceded on cross-examination that disagreement existed within the medical community regarding whether shaking alone, without impact, could create enough force to cause subdural hematomas and retinal hemorrhages. Defense expert Dr. Schlechter testified that although the umbilical cord was wrapped around the infant's neck at birth, the infant was healthy with no medical problems associated with the birth. Calling Dr. Yazbak to rebut Dr. Schlechter's testimony about possible adverse consequences from the umbilical cord would, at best, have contributed only marginally to the defense theory of the case and would, at worst, have undermined the credibility of Dr. Schechter. Regarding Hepatitis B vaccinations, the record is not sufficiently developed to discern

> what Dr. Yazbak's testimony would have been. In its motion in limine, the defense claimed that Dr. Yazbak was prepared to testify that there are "many known and reported cases" of adverse effects from Hepatitis B vaccinations, including retinal hemorrhaging and subdural hemorrhaging. Despite that claim, at the hearing, the defense admitted that until recently locating Dr. Yazbak, it had been unable to find any expert willing to testify consistent with the defense theory. Furthermore, Dr. Yazbak's testimony would not have explained the infant's neurologic devastation and severe brain trauma. Accordingly, we conclude that the exclusion of the expert testimony did not affect the result of the trial. *See* Tenn. R. Crim. P. 52(a).

State v. Maze, 2006 WL 1132083 at *19. At the post-conviction hearing, Dr. Yazbak testified that he did not know if any of the victim's problems on May 3, 1999, could be attributed to the Hepatitis B vaccine. He also admitted that the American Academy of Pediatrics had a "position paper that basically says that the findings [the victim] had on 5/3/99, are diagnostic of inflicted head trauma from shaking." Dr. Yazbak admitted that there was no evidence based on the CT scan that the victim had extra collections of blood or cerebral spinal fluid prior to May 3, 1999, and no evidence of any birth related subdural hemorrhage. He further admitted that there were no symptoms associated with an altered neurological status between birth and May 3, 1999. Dr. Yazbak acknowledged that medical literature recognizes that when there is a collapse, such as the victim experienced on May 3, 1999, in the absence of a well-documented traumatic event, the only way in which it would happen would be by abuse. We conclude that Petitioner has failed to show that trial counsel's assistance in this asserted ground fell below acceptable standards or that Petitioner was prejudiced by any aspect of his trial counsel's assistance on this ground. Petitioner is not entitled to relief on this issue.

B. Failure to Consult with a Qualified Medical Expert Regarding Imaging Evidence of the Victim's Neurological Damage and Present a Qualified Medical Expert to Contradict the State's Medical Evidence Regarding Causation of the Victim's Neurological Damage.

Petitioner next contends that trial counsel was ineffective for failing to consult with qualified experts about the imaging of the victim's neurological damage and to call an expert witness at trial to contradict the State's expert testimony regarding the causation of the victim's neurological damage. In support of his claim, at the post-conviction hearing, Petitioner presented the testimony of Dr. Patrick Barnes, a Pediatric Neuroradiologist. Dr. Barnes testified that there have been significant changes in medical literature concerning shaken baby syndrome since 1998 and that "evidence -based medicine" is now applied rather than the triad of retinal hemorrhages, subdural hemorrhages, and brain injury (encephalopathy). Dr. Barnes testified that the victim may have suffered from coagulopathy,

a bleeding or clotting problem, which caused the hemorrhages in his brain. He further noted that the injury to the victim's brain was unusual for a traumatic injury and was consistent with a stroke. Dr. Barnes testified that the victim had no injury to the neck or spinal cord, which was unusual for shaken baby syndrome "because that's the weakest part of the head and neck." Although he felt that the present case was unusual for shaken baby syndrome, he admitted that it was consistent with battered child syndrome.

Dr. Barnes admitted that he reviewed the victim's medical records and was familiar with the variety of tests administered to the victim at the hospital. He testified that although the doctors from Vanderbilt ruled out venous thrombosis in their reports, he disagreed with their findings. Dr. Barnes testified that he did not consider the photographs of the victim's bruises in his findings, and he did not consider other evidence of traumatic injury to the victim because "it's not within our area of expertise or practice with regard to the ethics in medicine." He also did not consider the victim's history as part of his diagnostic process. Dr. Barnes admitted that his testimony was contradictory to other medical literature on the subject and to what he had previously written in 1999.

In the order denying post-conviction relief, the post-conviction court held:

> The Court finds that counsel's preparation of the case was thorough. He contacted and consulted with numerous experts and was adequately prepared to effectively represent the defense as to each issue in trial. Trial counsel had the benefit of the State's proof from a prior trial and demonstrated his knowledge of the issues throughout the trial. The Court finds that petitioner has failed to prove by clear and convincing evidence that trial counsel was ineffective as to this issue. The issue is dismissed.
>
> Next, the petitioner asserts that counsel failed to call witnesses to impeach prosecution witnesses and failed to present non-abusive causes for the victim's injuries, including issues relating to the pregnancy. The Court finds that counsel did attempt to offer contradicting witnesses, but was unable to locate experts to support the defense position. In addition, alternative experts, such as Dr. Yazbak, were investigated, but the Court declined to permit the testimony. That issue was reviewed on appeal. In addition, the Court finds that Counsel cannot be found ineffective in his failure to call or locate a witness such as Dr. Barnes, whose position was not favorable for the defense until shortly before the trial. The Court finds that petitioner has failed to prove by clear and convincing evidence that trial counsel was ineffective as to this issue. The issue is dismissed.

Further in the order, the post-conviction court notes that trial counsel "pursued defense evidence but was unable to present experts contrary to the State's witnesses. An expert was located concerning the broken clavicle but his opinion was consistent with the State's." As to counsel's alleged failure to provide medical records from the date of the victim's injury and from the victim's history, beginning with the mother's pregnancy, to a qualified radiologist, the post-conviction court held:

> The Court finds that trial counsel consulted with experts relating to the evidence in this case and presented any viable claims and was proficient in his cross-examination of witnesses as to this case. Drs. Sutton and [Schlechter] were cross examined extensively on pregnancy and birth issues. Trial counsel could not have been expected to present the testimony of Dr. Barnes, whose own testimony had just recently changed as to the issues in this case of the time of trial and would not likely have been credible as to those new found opinions. The Court finds that petitioner has failed to prove these allegations by clear and convincing evidence. The issues are dismissed.
>
> In furtherance of the above claims, petitioner asserts trial counsel was ineffective in his consultation and preparation of radiological experts for trial because he did not present medical proof contradicting Shaken Baby Syndrome and instead offer [sic] proof demonstrating coagulopathy. The Court finds that the issue of blood clotting disorders was brought out on cross-examination of Dr. Jennings and that Dr. Starling stated "normal clotting" as to the blood work testing performed. Further, petitioner's own witness, Dr. Barnes, testified it is only speculation that this could have been an issue based upon the lack of medical findings supporting his contention.

The post-conviction court's findings are supported by the record. Trial counsel testified that he consulted with Dr. Boulden, a pediatric radiologist at LeBonheur Hospital in Memphis, concerning the victim's fractured collarbone, and Dr. Boulden confirmed that the bone was fractured. Trial counsel did not call him as a witness because he would not have supported the defense. Although trial counsel did not consult with Dr. Boulden about the MRI's, CT scans, or the retinal photos in this case, he did consult with Dr. Cleland Blake, a pathologist, about the evidence. Trial counsel could not recall if he actually sent the MRI and CT images to Dr. Blake; however, he said that he sent Dr. Blake "quite a bit of material," including copies of the victim's retinal slides. Based on a review of the material sent, Dr. Blake told trial counsel that the victim suffered child abuse or non-accidental trauma. Again, trial counsel did not call Dr. Blake to testify at trial because he would not have supported the defense.

Trial counsel testified that he was assisted at trial by Toni Blake, an employee of the "National Center for assisting trial attorneys in the defense of cases involving allegations of Shaken Baby Syndrome." She helped him with various types of information, which included a laundry list of alternative medical theories or challenges to testimony presented by the State's experts. She also gave him Dr. Yazbak's name and the name of Dr. Edward Willey, a pathologist licensed to practice in Florida and Michigan, who testified at trial. On appeal, this Court noted that Dr. Willey had studied "childhood head injuries and trauma." *State v. Maze*, 2006 WL 1132083 at *13. Dr. Willey did not believe that it was "medically reasonable to attribute the death of the child in October 2000 to a trauma that occurred on May 3, 1999." He felt that the victim had hepatitis, and the liver damage was sufficient to cause death. *Id*. Trial counsel also consulted with two doctors in California that Ms. Blake put him in contact with, and he consulted with Dr. Kay Washington, an expert in liver disorders. At trial, Dr. Washington testified that the injuries to the victim's liver indicated a pattern attributable to hepatitis, and the "degree of liver injury certainly could've been a significant contribution to death." However, both Dr. Washington and Dr. Willey acknowledged the victim's brain injury, and Dr. Washington noted that it was the overriding cause of death. As previously discussed, trial counsel consulted with Dr. Yazbak but he was not permitted by the trial court to testify.

Even if trial counsel's performance in this area was deficient, Petitioner has failed to show any resulting prejudice. On appeal, this Court noted that "the defendant fiercely contested the charges in this case, and both he and the state introduced prodigious expert medical evidence to support their respective positions." *State v. Maze*, 2006 WL 1132083 at * 1. This court further noted: "Through cross-examination of the state's experts, the defense explored medical issues favorable to its position." *Id*. at *19.

The post-conviction court found that counsel properly and adequately cross-examined the State's witnesses. The court held:

> The Court finds that counsel was extensive in his cross-examination of all medical witnesses and evidence including Dr. Jennings and Dr. Starling regarding the findings of Shaken Baby Syndrome evidence in this case and Dr. Levy regarding the autopsy findings. In his cross-examinations, trial counsel utilized the majority of the contradictory theories regarding the causation of the child's death which were raised at this hearing and was able to get some of the State's witnesses to agree with his positions. Trial counsel was exhaustive and thorough in his examinations of the evidence and witnesses well within or above the standard of competency of a criminal defense attorney.

The record supports the post-conviction court's findings. Trial counsel effectively cross-examined the State's expert witnesses concerning multiple theories on the cause of the victim's injuries. Through cross-examination of Dr. Ian Jones, trial counsel pointed out various errors and omissions in the hospital notes, such as failure to note bruising and to show whether Dr. Jones had inquired about birth defects or other aspects of the victim's medical history. His notes also incorrectly reflected that the victim was born full-term. *Id.* at 2. During cross-examination of Dr. Suzanne Starling, trial counsel attempted to identify medical mistakes and link the victim's injuries to pre-existing medical conditions. She was questioned about the mother's pregnancy complications, and she agreed that retinal hemorrhaging can be the natural result of child birth. Dr. Starling was also questioned about the adverse side effects of the Hepatitis B vaccine. She conceded that the scientific community disagreed on whether infant shaking, without impact, can cause subdural hematomas and retinal hemorrhages. *Id*. at * 5. On cross-examination by trial counsel, Dr. Mark Jennings testified that there is an existing dispute as to whether infant shaking alone can cause subdural hemorrhages, and he acknowledged that a traumatic delivery involving forecepts can cause such hemorrhages. *Id*. at *7. The victim's pediatrician, Dr. Lesa Sutton-Davis, was also cross-examined about mercury contained in the Hepatitis B vaccine that the victim received, and she noted that "mercury was later removed from the vaccine 'because there was a theoretical concern about causing brain damage,' but '[i]t was never proven." *Id*. at *8.

Furthermore, as noted by the post-conviction court, Dr. Barnes' testimony at the post-conviction hearing was speculative and in direct contravention to the State's experts and to his previous position on the subject. The State presented evidence that in addition to the brain injury, the victim suffered a fractured collarbone, and there was bruising about his body. Dr. Barnes admitted that his testimony concerning coagulopathy was speculative "since the proper testing wasn't done." He agreed that the medical community regards subdural hemorrhage and subarachnoid hemorrhage in a child the victim's age as evidence of trauma unless proven otherwise. He further agreed with the eye findings in the ophthalmology notes which reflected that non-accidental injury should be considered in the absence of a blood or clotting disorder. Dr. Barnes was aware that the treating physicians in the victim's case tested for venous thrombosis and ruled it out. We conclude that Petitioner has failed to show that trial counsel's assistance fell below acceptable standards or that Petitioner was prejudiced by any aspect of his trial counsel's assistance. Petitioner is not entitled to relief on this issue.

IV. Petition for Writ of Error Coram Nobis

In his final issue, Petitioner alleges that the post-conviction court erred in dismissing his petition for writ of error coram nobis. A writ of error coram nobis is a very limited remedy which allows a Petitioner the opportunity to present newly discovered evidence "

which may have resulted in a different verdict if heard by the jury at trial." *State v. Workman*, 41 S.W.3d 100, 103 (Tenn. 2001); *see also State v. Mixon*, 983 S.W.2d 661 (Tenn. 1999). The remedy is limited "to matters that were not and could not be litigated on the trial of the case, on a motion for new trial, on appeal in the nature of a writ of error, on writ of error, or in a habeas proceeding." T.C.A. § 40-26-105. Examples of newly discovered evidence include a victim's recanted testimony or physical evidence which casts doubts on the guilt of the Petitioner. *Workman*, 41 S.W.3d at 101; *State v. Ratliff*, 71 S.W.3d 291 (Tenn. Crim. App. 2001); *State v. Hart*, 911 S.W.2d 371 (Tenn. Crim. App. 1995). The Supreme has stated the following concerning the standard to be applied when a trial court reviews a petition for writ of error coram nobis:

> [T]he trial judge must first consider the newly discovered evidence and be "reasonably well satisfied" with its veracity. If the defendant is "without fault" in the sense that the exercise of reasonable diligence would not have led to a timely discovery of the new information, the trial judge must then consider both the evidence at trial and that offered at the coram nobis proceeding in order to determine whether the new evidence may have led to a different result.

State v. Vasques, 221 S.W.3d 514, 527 (Tenn. 2007). Whether to grant or deny a petition for writ of error coram nobis rests within the sound discretion of the trial court. *Id*. at 527-28.

In his brief, Petitioner contends that Dr. Barnes' testimony concerning head trauma and shaken baby syndrome is "newly discovered evidence based upon advancement and evolution of medicine, particularly in regard to Shaken Baby Syndrome." He further argues that he should not be at fault for "failing to locate or present an expert witness such as Dr. Barnes." In his petition for writ of error coram nobis, Petitioner stated the following:

> Medical experts have recently determined that the cause of the child's brain injuries was likely a coagulopathy (i.e. bleeding or clotting disorder), that may relate to a number of factors, including dating back to birth. The causation of the injuries may be related to birth trauma or birth related subdural hemorrhage, venous thrombosis, coagulopathy, infection, genetic or metabolic disorders. This evidence, if presented at trial, would have provided substantial evidence of non-abusive causation of the child's injuries."

In its order denying the petition, the post-conviction court found that Dr. Barnes' testimony was not credible. The court based this finding upon Dr. Barnes' "previously held opinions and the diametrically opposed new testimony, which he is doing without reimbursement on court cases involving shaken baby syndrome." The post-conviction court further found that

much of the evidence presented at the hearing on this matter was presented at trial. The court held:

> The evidence is not "newly discovered" in the manner anticipated by the statute or prior case law, but rather evidence to be used as allegations towards ineffective assistance of counsel that Dr. Barnes was not obtained for trial. Moreover the court is not convinced that the evidence would have resulted in a different judgment had it been presented. Dr. Barnes agrees there are no medical findings to support the opinion that the victim [died] from "coagulopathy" and that speculation is involved in his opinion. This opinion would not qualify under Tennessee Rule of Evidence 702 or *State v. Stevens*, 78 S.W.3d 817 (Tenn. 2002); *McDaniel v. CSX Transp*., Inc., 955 S.W.2d 257 (Tenn. 1997).

We agree with the post-conviction court that Dr. Barnes' testimony is not "newly discovered evidence." As noted by the court, much of the evidence presented at the post-conviction hearing was presented at trial. As we have previously noted, on direct appeal, this Court quoted a portion of the trial court's ruling on Petitioner's motion in limine concerning Dr. Yazbak's testimony. The court stated:

> The issues that're set forth in [the] motion in limine, dealing with Hepatitis B vaccine; the retinal hemorrhaging, and subdural hemorrhaging; the lack of injuries to neck muscles and spine, attributable or not attributable to shaken-baby syndrome, have all been know[n] . . .[and] many of them addressed in the prior trial.

At trial, Dr. Ian Jones testified that the victim suffered from a subarachnoid bleed, a brain contusion, and a subdural hemorrhage. He testified that the victim had no signs of infection, and a spinal tap was negative for meningitis. Dr. Jones testified that he observed bruising on the victim's head and chest, and he was cross-examined as to whether he inquired about birth defects or any other aspect of the victim's medical history. *State v. Maze*, 2006 WL 1132083, at *2-3. Dr. Suzanne Starling testified that the victim had bruising along his eyes and abdomen, and she saw conjunctival and retinal hemorrhaging. To her the injuries were indicative of abusive head trauma, more commonly known as "battered child syndrome" or "shaken baby syndrome." Dr. Starling testified that testing performed on the victim "to detect meningitis, sepsis, abnormal liver functions, and bleeding disorders proved negative." She noted that the CAT scan showed "significant damage and bleeding" to the victim's brain. He also had a fractured clavicle (collarbone). *Id*. at 3-4. On cross-examination, Dr. Starling acknowledged that the victim was born prematurely and that the mother had several pregnancy complications, which she excluded as the cause of the victim's

injuries. She also acknowledged that there is disagreement in the scientific community as to whether infant shaking, without impact, can create enough force to cause subdural hematomas and retinal hemorrhages. She testified that the victim did not have Alagille Syndrome, an inherited liver disorder that can cause clotting dysfunctions. Dr. Starling concluded that the victim was a battered child. *Id*. at 4-6.

Dr. Mark Jennings testified that the victim had a large collection of blood on his brain indicating a "severe acceleration-deceleration injury." He felt that the victim's head trauma was non-accidental and could not have occurred "days-or even hours-before the defendant summoned emergency services. *Id*. at 6. On cross-examination, Dr. Jennings acknowledged that the victim's neck muscles and spine appeared to be uninjured. He further acknowledged that there is an "existing dispute whether infant shaking alone can cause subdural hemorrhages, and he agreed that a traumatic delivery involving forecepts can cause such hemorrhages." He saw no evidence from the scans and films taken in May of 1999 that the victim had any prior brain injury or bleeding.

In his brief, Petitioner admits that "most of Dr. Barnes' testimony was not based on new medicine or literature and was not different than what he would have testified [to] in 1999 or earlier." However, during the post-conviction hearing, Dr. Barnes admitted that some of his testimony conflicted with his writings on the subject of shaken baby syndrome prior to 1999. At the post-conviction hearing, Dr. Barnes admitted that his testimony concerning coagulopathy was speculative because the proper testing was not performed, and he agreed that the medical community regards subdural hemorrhage and subarachnoid hemorrhage in a child the victim's age as evidence of trauma unless proven otherwise. Dr. Barnes also agreed that the victim could get the constellation of findings in this case "with battering" and that the victim may have met some of the "skin finding" for battered child syndrome. We agree with the State that the evidence offered by Petitioner is cumulative to other evidence in the record and does not support his petition for writ of error coram nobis. The evidence serves no other purpose than to contradict or impeach the evidence adduced during the course of the trial and cannot be characterized as newly discovered evidence. *See State v. Hart*, 911 S.W.2d 371, 375 (Tenn. Crim. App. 1995). Based on the foregoing, we conclude that Petitioner has failed to show that the post-conviction court abused its discretion in denying the petition for writ of error coram nobis.

CONCLUSION

After a thorough review of the record, we affirm the judgment of the post-conviction court.

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THOMAS T. WOODALL, JUDGE